DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 70.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-007103
Date Inspected: 06-Jun-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Japan Steel Works

OSM Arrival Time: 730
OSM Departure Time: 1630
Location: Muroran, Japan

CWI Name: Chung Fu Kuan

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower, Jacking, and Deviation Saddles

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 at Japan Steel Works.

Fabrication Shop #4:

Weld Operation of Saddle: Tower Saddle Segment T1-2 (steel section being welded to steel section)

The QA Inspector observed the partial-joint penetration groove (cover pass and final pass) weld operation on the rib plate (steel section) to stem plate (steel section) of tower saddle T1-2. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the weld operation that the minimum preheat temperature of 110 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. T. Ohkawa (03-3091) on weld joint no. 8S-2L were in compliance with WPS SJ-3012-2 per the FCAW-G process in the (1G) flat position using (1.6) mm diameter TM55 electrode on the cover pass and the SMAW process in the (1G) flat position using (4.0) mm diameter E9018 electrode on the final pass. The QA Inspector observed that the partial-joint penetration groove weld operation was completed by the end of the QA Inspectors' shift.

Post Weld Stress Relief Heat Treatment Operation on Saddle: Tower Saddle Segment T1-3 (cast section welded to steel section)

The QA Inspector observed that the intermediate post weld heat treatment operation was completed on tower saddle segment T1-3. The next operation for the tower saddle segment will be the blast cleaning operation.

Storage of Saddle: West Deviation Saddle Segment W2-E1 (cast section welded to steel section)

The QA Inspector observed that west deviation saddle segment W2-E1 is located in Fabrication Shop #4. On this date, the QA Inspector observed that no work was performed on west deviation saddle segment W2-E1.

Storage of Saddle: West Deviation Saddle Segment W2-E2 (cast section welded to steel section)
The QA Inspector observed that west deviation saddle segment W2-E2 is located in Fabrication Shop #4. On this date, the QA Inspector observed that no work was performed on west deviation saddle segment W2-E2.

NDT Operation on Saddle: West Deviation Saddle Segment W2-W1 (cast section welded to steel section)
The QA Inspector was informed by Quality Control (QC) Inspector Mr. Chung Fu Kuan that Nikko Inspection Services (NIS) NDT QC inspection personnel will perform the magnetic particle test (MPT) inspection on the rib (cast section) to rib plate (steel section) and stem (cast section) to stem plate (steel section) partial-joint penetration (PJP) groove welds in accordance with AWS D1.5-2002 on west deviation Saddle Segment W2-W1 during the week of June 8th 2009.

Buttering Weld Operation completed on Saddle: West Deviation Saddle Segment W2-W2 (cast section)
The QA Inspector observed that the weld surfacing (buttering operation / build-up of weld metal) on the interior of the trough on west deviation saddle segment W2-W2 (cast section) was completed. The next operation to be performed is the fit-up, tack-weld and fillet weld operation of the temporary attachments (stay plates) at specific locations on the interior of the trough for dimensional and distortion control during the weld operation of the fabricated built-up section to the cast section.

Weld Operation of Saddle: West Deviation Saddle Segment W2-W3 (steel section being welded to steel section)
The QA Inspector observed the partial-joint penetration groove tee-joint weld operation on the rib plate to stem plate of west deviation saddle W2-W3. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the weld operation that the minimum preheat temperature of 160 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. H. Mitsumori (81-5438) on weld joint no. W3Y-15V- (fill pass) and Mr. R. Kito (08-5174) on weld joint no. W3Y-16V- (fill and cover passes) were in compliance with WPS SJ-3011-3 per the FCAW-G process in the (1G) flat position using (1.6) mm diameter TM95 electrode. The QA Inspector observed that the partial-joint penetration groove tee-joint weld operation was in process at the end of the QA Inspectors' shift.

Tack-Weld Operation of Bearing Blocks to Rocker Bearing Plate Assembly: East Saddle E2-W1
The QA Inspector observed that the tack-weld operation was completed on the bearing blocks- (piece mark no. 21-4) to the rocker bearing plate- (piece mark no. 21-1) of the rocker bearing plate assembly that will be anchored to the east saddle grillage for east saddle E2-W1. The tack weld operation was performed by JSW welding personnel Mr. T. Ohta (08-2017) using WPS SJ-3177-4 per the SMAW process in the (2F) horizontal position using (4.0) mm diameter LB52A electrode. On this date, the QA Inspector observed that no other work was performed on the rocker bearing plate assembly.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with the applicable contract documents.

Summary of Conversations:

No significant conversations were reported on this date.

WELDING INSPECTION REPORT

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson,Art	Quality Assurance Inspector
Reviewed By:	Guest,Kittric	QA Reviewer